Applicant: Marc Charles Florent Berckmans et al. Attorney's Docket No.: 19790-0009US1 / CER03-0022

Serial No.: 10/579,082 Filed: May 12, 2006

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Amendments to the Claims:

No claims were amended herein. The claims and their status are shown below.

- 1. (Previously presented) A method of modifying starch or starch derivatives comprising: introducing a continuous flow of starch substrate, gas and, optionally, one or more reagents, into a reactor, wherein the starch substrate has a moisture content of between 0 and 45% by weight, a residence time in the reactor of between 1 and 60 minutes and is heated to between 50 and 220°C, characterised in that the starch substrate and the gas are introduced into the reactor in opposing directions and in that the reactor has a tubular body comprising a rotating shaft upon which is disposed one or a plurality of blades, wherein the one or plurality of blades conveys the starch substrate from an inlet at a first end of the reactor to an outlet at a second end of the reactor.
- 2. (Previously presented) A method according to claim 1 wherein the blades have a tip speed of between 2 and 30 m/s.
- 3. (Previously presented) A method according to claim 1 wherein the starch substrate has a moisture content of between 1 and 30% by weight.
- 4. (Previously presented) A method according to claim 1 wherein the starch substrate is selected from the group consisting of a native starch, a starch derivative, starchy material and mixtures of two or more thereof.
- 5. (Previously presented) A method according to claim 1 wherein the starch substrate is introduced into the reactor in powder form.
- 6. (Previously presented) A method according to claim 1 wherein the reagent is selected from the group consisting of a hydrolysing agent, an oxidation agent, an acid, a dextrinisation agent, an alkylation agent, an esterification agent, an etherification agent, a cross-bonding agent and mixtures of two or more thereof.
- 7. (Previously presented) A method according to claim 1 wherein the reagent is selected from the group consisting of a mineral acid, a peroxide, an oxidising agent and mixtures of two or more thereof.
- 8. (Previously presented) A method according to claim 1 wherein the one or more reagents are added in an amount between 0.001 and 20% by weight.

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9. (Previously presented) A method according to claim 1 wherein the one or more reagents are introduced into the reactor in liquid, powder or gas form.

- 10. (Previously presented) A method according to claim 1 wherein at least one of the one or more reagents is added to the starch substrate before being introduced into the reactor.
- 11. (Previously presented) A method according to claim 1 wherein the residence time of the starch in the reactor is between 2 and 45 minutes.
- 12. (Previously presented) A method according to claim 1 wherein the reaction is maintained at a temperature between 80 and 220°C.
- 13. (Previously presented) A method according to claim 1 wherein the gas introduced into the reactor is selected from the group consisting of: air, steam, nitrogen, carbon dioxide and a mixture of two or more thereof.
- 14. (Previously presented) A method of preparing highly soluble starch comprising: introducing a continuous flow of starch substrate, gas, and one or more reagents selected from the group consisting of a mineral acid, a peroxide and an oxidising agent, into a reactor, wherein the starch substrate has a moisture content between 1 and 30% by weight, a residence time in the reactor of between 2 and 45 minutes and is heated to between 80 and 220°C, characterised in that the starch substrate and the gas are introduced into the reactor in opposing directions and in that the reactor has a tubular body comprising a rotating shaft upon which is disposed one or a plurality of blades, wherein the one or plurality of blades conveys the starch substrate from an inlet at a first end of the reactor to an outlet at a second end of the reactor.
- 15. (Original) A method according to claim 14, wherein the reaction is carried out under alkaline conditions.
- 16. (Previously presented) A method according to claim 14, wherein the highly soluble starch is from 70% to 100% soluble in water having a temperature of no more than 50°C.
 - 17-19. (Canceled)
- 20. (Previously presented) A method according to claim 1 wherein the blades have a tip speed of between 3 and 25 m/s.
 - 21. (Canceled)